FACT SHEET

THE MEMPHIS DEPOT ENVIRONMENTAL RESTORATION PROGRAM
THE DEPOT
RESTORE, REUSE, REVITALIZE

This is one in a series of Fact Sheets on the remedies selected in the Records of Decision (ROD) for the Main Installation (2001) and Dunn Field (2004).

MONITORED NATURAL ATTENUATION

The selected remedy for groundwater at the Main Installation (MI) of the former Memphis Depot includes enhanced bioremediation at specific treatment areas, Monitored Natural Attenuation (MNA) outside the treatment areas, and land use controls to prevent use of the shallow aquifer beneath the MI. The Final Remedial Design for the MI was approved by the Environmental Protection Agency (EPA) in August 2004.

This Fact Sheet discusses MNA, which is being used to treat groundwater containing low levels of solvents or volatile organic compounds (VOCs) in the shallow aquifer beneath the MI. MNA will complement the enhanced bioremediation being used in areas where the shallow aquifer has higher concentrations of VOCs.

MNA makes use of natural processes to reduce the concentration and amount of compounds in groundwater. These processes, which are active in groundwater to varying degrees, may reduce compounds in several ways: breaking them down into individual components through *biodegradation*; reducing concentrations through *dilution* or *dispersion*; or binding them to soil through *adsorption* so that the compounds do not spread as far.

The Depot's environmental team will observe these processes through long term monitoring to document changes in the groundwater concentrations and to ensure compounds do not migrate offsite or to deeper aquifers. Progress will be shown by a decreasing trend in concentrations of VOCs in the shallow aquifer at the MI.

More information can be found in the EPA's *A Citizen's Guide to Monitored Natural Attenuation*, located online at http://www.clu-in.org/download/citizens/mna.pdf.

Although the groundwater in the shallow aquifer is not used for drinking water, land use controls will also be used as part of the groundwater cleanup remedy. The land use controls are to prevent the installation of commercial or domestic wells or drilling into the deeper aquifers beneath the MI.

The Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC) will review the effectiveness of this remedy at five-year intervals to ensure the site continues to be safe for community reuse.

For more information on the cleanup remedies being used at the former Memphis Depot, call our Community Relations Office at (901) 774-3683. The RODs and the final RDs for the Main Installation and Dunn Field Disposal Sites are available for reference in the Depot's Information Repositories located at the Depot and the Cherokee Branch Library.